

Chapter 16: Metrics

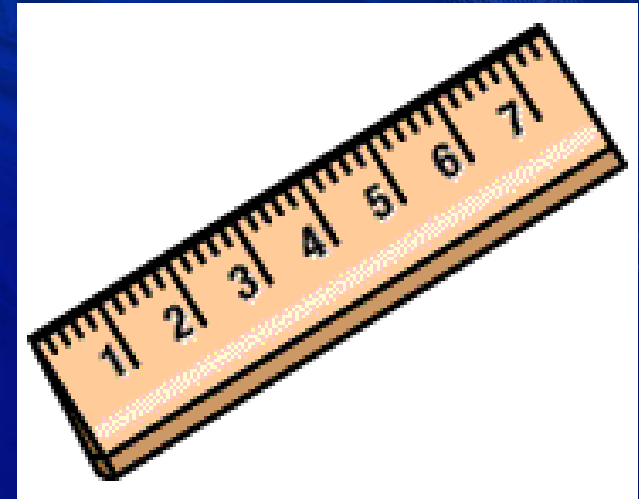
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Community Resilience Metrics

Metrics are needed...

- To understand the current situation
- To assess planning options
- For transparency in decision-making
- To evaluate progress



Community Resilience Metrics

Metrics are needed to assess expected benefits of planning decisions regarding the built environment:

- Siting, Design, Construction
- Operation, Maintenance, Protection
- Repair and Restoration



Four Main Types of Community-Level Metrics

- Recovery times
- Economic vitality
- Social well-being
- Ecological footprint
- Plus others (hybrids, system-specific, ...)



Many Options Exist

- Many individual metrics or indicators have been proposed in the open literature
- Several examples of each main type are reviewed in Section 16.3 of the Guide
- Many methodologies for combining metrics and assessing community-level resilience have been proposed in the open literature
- Several examples in Section 16.4 of the Guide



Examples of Existing Methodologies

- SPUR
- Oregon Resilience Plan
- UNISDR Disaster Resilience Scorecard
- CARRI Community Resilience System
- Communities Advancing Resilience Toolkit
- Baseline Resilience Indicators for Communities
- Rockefeller City Resilience Framework
- NOAA Coastal Resilience Index
- FEMA Hazus Methodology



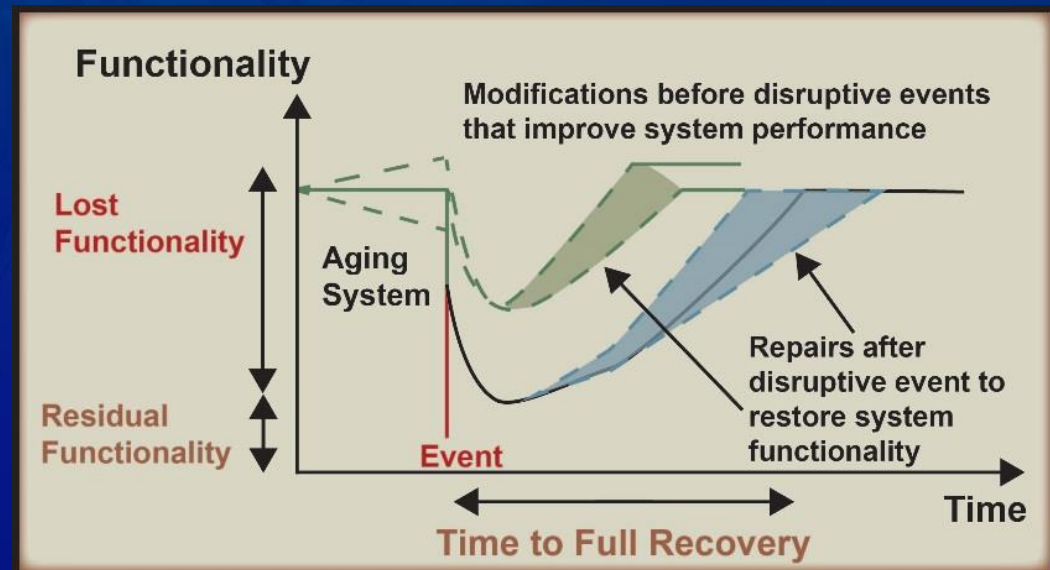
There is No “One Size Fits All” Solution

- Each methodology has strengths
- Best metrics and most appropriate weightings will likely vary from one community to the next
- This is an ongoing and active area of research, development and evaluation



Guide Focuses on Recovery Times

- Easy to understand and communicate
- Can be developed through expert judgment (lower cost) or detailed system-of-systems modeling (higher cost)
- Recovery times are a pre-requisite for nearly all other metrics



Source: McAllister (2013)

